#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011364 Address: 333 Burma Road **Date Inspected:** 02-Jan-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG Segment** 

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Segment 5CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SEG026A-008. The welder is identified as #054467 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-repair for RFI ABF-RFI-001938R01, Side Plate to Bottom Plate splice bike path side.

Segment 6AW

This QA Inspector observed Flux Cored Arc Welding (FCAW)) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW6F-003. The welder is identified as #037743 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

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Segment 5BW

This QA Inspector observed match drilling of bolt holes in the top Counter Weight connection plate.

Segment 6CW

This QA Inspector observed cutting of the CJP weld connecting the Longitudinal Diaphragm flange to Floor beam to correct misalignment using WR9640 at panel point 44 cross beam side.

Segment 5BE/5CE

This QA Inspector observed grinding of Side Plate WT stiffener hold back fillet welds after ZPMC VT Inspection. This QA Inspector observed ABF personnel performing Ultrasonic Testing (UT) of the Edge Plate segment CJP splice, bike path side. D scan was performed.

Segment 5BW/5CW

This QA Inspector observed ABF personnel performing Ultrasonic Testing (UT) of the Side Plate segment CJP splice, counter weight side. D scan was performed.

Segment 6CE

This QA Inspector observed beveling of the Deck Plate with the use of a mechanically guided torch at the 6CE/7AE field splice location.

Segment 5BW

This QA Inspector observed the angle brace connected to the Side Plate WT stiffener flanged was cut between panel points 34 and 35 at LD10B, cross beam side.

Segment 7AE

This QA Inspector observed beveling of the Side Plate with the use of a mechanically guided torch, bike path side at the 6CE/7AE field splice location.

ZPMC Quality Control (QC) Inspector is identified as Fang Ya Jun and Wang Li Yang. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

No relevant conversations.

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## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez,Dan	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer